

Need Number: APS-2023-033

Process Stage: Submission of Supplemental Projects for Inclusion in the Local Plan – 9/22/2026

Previously Presented: Solution Meeting SRRTEP-W - 06/17/2026
Need Meeting 10/20/2023

Project Driver: Equipment Condition/Performance/Risk

Specific Assumption Reference:

Line Condition Rebuild/Replacement

- Age/condition of wood pole transmission line structures
- System characteristics including lightning and grounding performance, galloping overlap, insulation coordination, structural capacity needs, clearance margins, and future needs (e.g., fiber path)

System Performance Projects Global Factors

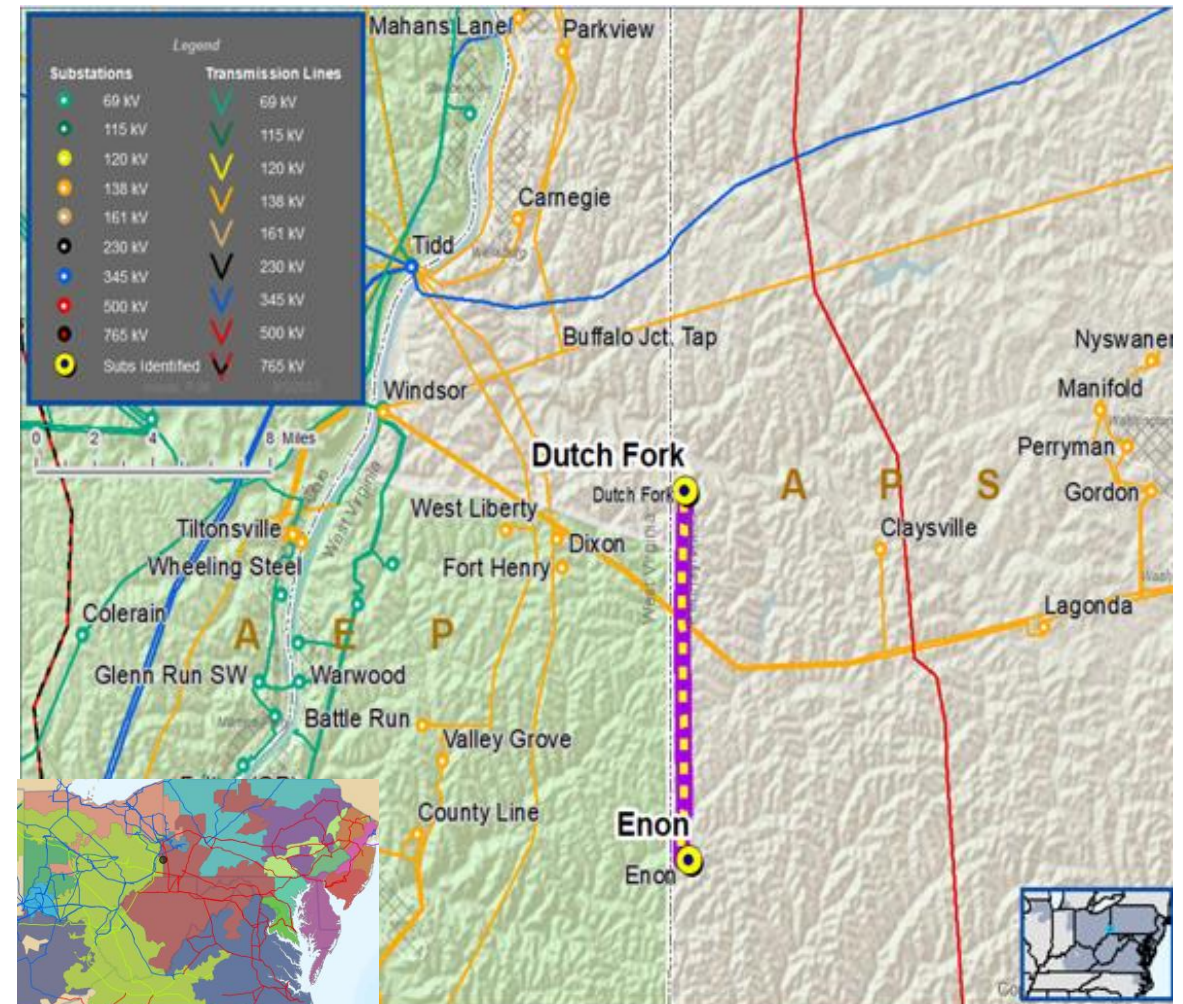
- Substation/line equipment limits

Problem Statement:

Enon Substation is fed radially from Dutch Fork. With an N-1 outage of the Dutch Fork – Enon 138 kV Line, 93 MW is lost at Enon. The Dutch Fork – Enon 138 kV Line is exhibiting deterioration.

Total line distance is approximately 12.5 miles.

39 of 79 structures failed inspection.



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Proposed Solution:

Rebuild 12.5 miles of the Dutch Fork - Enon 138 kV Line with Light Duty (LD) steel horizontal structures and install OPGW.

At Dutch Fork Substation: Remove wave trap, replace circuit breaker, disconnect switches, substation conductor and relaying.

At Enon Substation: Remove wave trap.

Dutch Fork - Enon 138 kV Line Ratings:

Existing Line Ratings: 229 / 229 / 229 / 229 MVA (SN/SE/WN/WE)

New Line Ratings: 308 / 376 / 349 / 445 MVA (SN/SE/WN/WE)

Alternatives Considered:

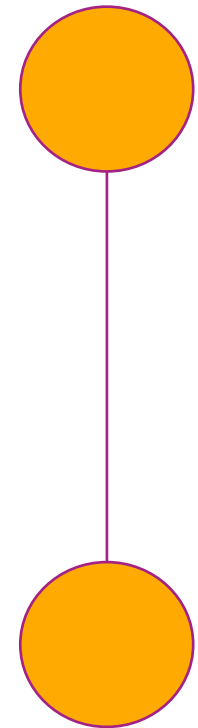
Maintain the line in existing condition.

Estimated Project Cost: \$41.70M

Projected In-Service: 12/08/2029

Supplemental Project ID: s3930.1

Dutch Fork



Enon

Legend	
500 kV	
345 kV	
230 kV	
138 kV	
115 kV	
69 kV	
46 kV	
34.5 kV	
23 kV	
New	